AMENDMENTS WITH CHANGES SHOWN

169. (Three Times Amended) A system for controlling a target computer from a remote workstation of the type that includes a keyboard, a mouse, and a monitor, comprising:

a host processor and associated video memory and keyboard/mouse buffers;

a video digitizer coupled to the host processor that receives analog video signals from the target computer, samples the video signals, and stores the video signals in the video memory;

a keyboard/mouse interface that receives keyboard and mouse signals from the remote workstation and stores them in the keyboard/mouse buffers; and

the host processor operating a remote access and control program that transmits the contents of the video memory to the remote workstation and receives the contents of the keyboard/mouse buffers from the remote workstation [target computer], both over a communication link.

170. (Amended) The system of claim 169, wherein [the host computer receives the keyboard and mouse signals from the remote workstation, stores the received keyboard and mouse signals in the buffers and forwards] the contents of the keyboard/mouse buffers are forwarded to a keyboard and mouse input on the target computer.

193. (Amended) A system, comprising:

a hardware host unit coupled to a host computer different from the hardware host unit; and

a remote computer software utility, located at a remote site computer, comprising:

a connection utility to establish a communication session with the host unit over a communication link; and

a pop up menu utility providing at least a user choice at the remote site computer to obtain access to the host computer via the connection [communication] utility.

198. (Amended) The system according to claim 195, wherein said digital codes are transmitted to a [said] remote location in response to a command received from said remote location requesting that said digital codes be transmitted.

211. (Amended) A circuit module for a computer having in operation therein a remote access engine to communicate between a host server and a remote workstation, comprising:

a main CPU to coordinate an analog to digital [to analog] conversion of host video signals from the host server;

a field programmable gate array, in communication with the main CPU;

a video interface circuit, in communication with the field programmable gate array, to capture the host video signals for the main CPU and field programmable gate array;

a video RAM to store host video signals digitized by the main CPU and field programmable gate array, and to deliver the digitized video signals to the remote access engine for delivery to the remote computer, the video RAM in communication with the field programmable gate array to receive at least video sync processing from the field programmable gate array;

at least one of a mouse driver circuit and a keyboard driver circuit, in communication with the main CPU, to receive, respectively, mouse and keyboard information from the remote computer;

a bus controller, in communication with the field programmable gate array, to communicate information identifying the digitized host video signals and the mouse and keyboard information to the remote access engine.

212. (Amended) A remote access system communicating with a digital network transmission medium to communicate user input signals from a remote computer to a host computer via the transmission medium and video signals from the host computer to the remote computer via the transmission medium, comprising:

a user input process to capture the user input signals for digital transmission to the host computer;

a video process to capture the video [input] signals, digitize them and format them for transmission to the remote computer, even when the host computer has locked up to no longer accept any user input signals;

a standard remote access engine:

to communicate the user input signals on the transmission medium between the host and remote computers, and

to communicate the video signals, in digital format, on the transmission medium between the host and remote computers, even when the host computer has locked up to no longer accept any user input signals.

220. (Amended) A computer having a virtual path communication link with a remote computer over a network medium, comprising:

a remote access engine;

a data bus;

a set of circuit modules in communication with a set of corresponding host computers to receive analog video signals from the corresponding host computers, to digitize the analog video signals, to synchronize the video signals to a video display characteristic of the remote computer, and to present the digitized and synchronized video signals to the data bus;

a communication port establishing a network connection via the network medium for [between] the remote access engine and a selected one of said set of circuit modules to receive the digitized and synchronized video signals and to deliver the selected digitized video signals to the remote computer for display.

221. (Amended) A computer according to claim 220, wherein:

each circuit module includes:

a main CPU to coordinate an analog to digital [to analog] conversion of host video signals from a corresponding host computer;

a field programmable gate array, in communication with the main CPU;

a video interface circuit, in communication with the field programmable gate array, to capture the host video signals for the main CPU and field programmable gate array;

a video RAM to store host video signals digitized by the main CPU and field programmable gate array, and to deliver the digitized video signals to the remote access engine for delivery to the remote computer, the video RAM in communication with the field programmable gate array to receive at least video sync processing from the field programmable gate array;

at least one of a mouse driver circuit and a keyboard driver circuit, in communication with the main CPU, to receive, respectively, mouse and keyboard information from the remote computer;

a bus controller, in communication with the field programmable gate array, to communicate information identifying the digitized host video signals and the mouse and keyboard information to the remote access engine.